

**REMARKS**

This Amendment is filed in response to the Office Action dated November 6, 2003. This application should be allowed and the case passed to issue. No new matter is raised by this amendment. The amendment to claims 2 and 6 are supported by Figures 1 and 6, which clearly teach that the high heat conductor film 6 is formed between the pair of terminal wirings 4A and 4B and is spaced apart from at least one of said pair of terminal wirings. The amendment to claim 4 is supported by claim 1.

Claims 2-6 are pending in this application. Claims 2, 3, 5, and 6 are rejected. Claim 4 is objected to as being dependent upon a rejected base claim. Claims 2 and 6 have been amended, and claim 1 has been cancelled.

***Rejections Under 35 USC § 102***

Claims 2, 3, 5, and 6 are rejected under 35 USC § 102(e) as being anticipated by Usami (6,194,775). This rejection is traversed, and reconsideration and withdrawal thereof respectfully requested. The following is a comparison of the instant invention and the cited prior art.

An aspect of the invention, per claim 2, is a semiconductor device comprising: a semiconductor substrate and a first insulating film formed on the semiconductor substrate. A polysilicon resistor film is formed on the first insulating film and a second insulating film is formed on the resistor film. A pair of terminal wirings is formed on the second insulating film and connected to the resistor film. A high heat conductor film consisting of a highly heat-conducting material is formed on the second insulating film. The high heat conductor film is formed in a predetermined area including an area above the resistor film between the pair of terminal wirings. A thickness of the high heat conductor film is thicker than a thickness of the

resistor film, and the high heat conductor film is spaced apart from at least one of the pair of terminal wirings

An aspect of this invention, per claim 6, is a semiconductor device, comprising a semiconductor substrate and a first insulating film formed on the semiconductor substrate. A polysilicon resistor film is formed on the first insulating film and a second insulating film is formed on the resistor film. A pair of terminal wirings is formed on the second insulating film and connected to the resistor film. A high heat conductor film of a highly heat-conducting material is formed on the second insulating film. The high heat conductor film is formed in a predetermined area, including an area above the resistor film between the pair of terminal wirings. The thickness of the second insulating film is less than the thickness of the resistor film, the thickness of the high heat conductor film is greater than the thickness of the resistor films, and the high heat conductor film is spaced apart from at least one of the pair of terminal wirings.

The Examiner asserts that Usami teaches the semiconductor device, including a semiconductor substrate 1, a first insulating film 2, a polysilicon resistor film 6, 7, a second insulating film 9, a high heat conductor film 11, and a pair of terminal wirings 11, 12. The Examiner avers that a portion of the wiring layer 11 is the claimed high heat conductor film and another portion, connected to the resistor film 6, is the claimed terminal wiring.

Contrary to the Examiner's assertion, Usami does not disclose the claimed semiconductor device. Usami does not disclose that the high heat conductor film is formed on the second insulating film between the pair of terminal wirings and the high heat conductor film is spaced apart from at least one of the pair of terminal wirings, as required by claims 2 and 6. Usami does not disclose a high heat conductor film that is a separate component of the semiconductor device. Usami, rather discloses that the Examiner asserted high heat conductor film 11 is an undefined

portion of the terminal wiring. Because the Examiner asserted high heat conductor film is a portion of the terminal wiring, the asserted high heat conductor film is not between **the pair of terminal wirings** and **spaced apart from at least one of the pair of terminal wirings**, as required by claims 2 and 6.

The factual determination of lack of novelty under 35 USC § 102 requires the disclosure in a single reference of each element of a claimed invention. *Helifix Ltd. v. Blok-Lok Ltd.*, 208 F.3d 1339, 54 USPQ2d 1299 (Fed. Cir. 2000); *Electro Medical Systems S.A. v. Cooper Life Sciences, Inc.*, 34 F.3d 1048, 32 USPQ2d 1017 (Fed. Cir. 1994); *Hoover Group, Inc. v. Custom Metalcraft, Inc.*, 66 F.3d 399, 36 USPQ2d 1101 (Fed. Cir. 1995); *Minnesota Mining & Manufacturing Co. v. Johnson & Johnson Orthopaedics, Inc.*, 976 F.2d 1559, 24 USPQ2d 1321 (Fed. Cir. 1992); *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051 (Fed. Cir. 1987). Usami does not teach that the high heat conductor film is between the pair of terminal wirings and spaced apart from at least one of the pair of terminal wirings, therefore Usami does not anticipate claims 2 and 6. Applicant submits that the rejection of the claims as anticipated by Usami should be withdrawn.

According to Usami, reference number 7 is a high resistance resistor. Thus, it would be expected that heat would be generated mainly in the high resistance resistor 7. Because the Examiner asserted high heat conductor film is not located above the high resistance resistor 7, the Usami device can not function like the claimed device. The high heat conductor film 6 of the present invention, which overlies resistor film 3, absorbs heat generated by the resistor film 3, such as heating caused by a power surge. Thus, the present invention provides improved resistance to power surges, not provided by Usami's device.

Applicant further submits that the claimed semiconductor device is not suggested by Usami.

The dependent claims further distinguish the claimed invention over Usami. Claim 3, for example, requires that the thickness of the high heat conductor film is twice the thickness of the resistor film or thicker, and claim 5 requires that the high heat conductor film is united with one of the terminal wirings. The cited references do not suggest the claimed semiconductor device with these additional limitations.

***Allowable Subject Matter***

Claim 4 is objected to as being dependent upon a rejected base claim but would be allowable if rewritten in independent form.

Applicant gratefully acknowledges the indication of allowable subject matter, and Applicant has rewritten claim 4 in independent form in accordance with the Examiner's recommendation.

In light of the amendments and remarks above, this application is in condition for allowance, and the case should be passed to issue. If there are any questions regarding this Request for Reconsideration or the application in general, a telephone call to the undersigned would be appreciated to expedite the prosecution of the application.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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